

SPECTRUM



VIRGINIA POLYTECHNIC INSTITUTE AND STATE UNIVERSITY

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VOLUME 22 NUMBER 29 FRIDAY, APRIL 21, 2000

TODAY'S EDITION
contains information on
Founders Day and the
Presidential Installation.

Steger to outline his vision for university's future

By David Nutter

Charles Steger will unveil his vision for Virginia Tech's future direction and development during his installation ceremony Friday, April 28, and begin a dialogue with the university community that will guide the institution into the next decade. The Founders Day 2000 and Presidential Installation Ceremony begins at 3 p.m. in Burruss auditorium.

Steger will challenge the university to improve its national standing, particularly in research and scholarship, with the goal of significantly increasing its national research rankings during the next 10 years. To move Virginia Tech to the next level as a national research university, Steger said, will also

require a serious discussion of the institution's sponsored-research, scholarly output, and library resources.

One major goal of the president's speech next Friday is to begin an intellectual debate on the direction of the institution and how it will continue to be a relevant force for change in an ever-changing world.

"Dreams must be shared by the entire university community if they are to be realized, and challenges cannot be overcome unless we all join together in our efforts," Steger said.

While growing the research program is a top priority, Steger remains committed to improving the quality of undergraduate education. For example, the president will suggest bolstering the honors program with a

significant endowment. "An excellent honors program attracts excellent students throughout all our programs," Steger said.

"While a significant amount of space has been constructed on campus during the last five years, resources in the fine and performing arts remain inadequate," Steger said. The president will announce efforts to improve the arts on campus, some of which are already under way.

Steger will challenge the university community to expand opportunities for people of color and other under-represented groups on campus. He also will comment on a program of continuing education for alumni.

Steger sees his talk as the first step in an effort to formalize planning efforts that will guide the university for the next decade.

Bioinformatics funding approved by commission

By Ralph Byers,

director of government relations

The Tobacco Indemnification and Community Revitalization Commission held its third meeting here on April 13 and 14. The primary purpose of the visit was to review the proposed bioinformatics program that Governor Jim Gilmore recommended for funding by the commission in December.

The commission is composed of 31 members, including three representatives of the Executive Branch, and eleven legislators and 17 citizens from the tobacco-growing regions of Southwest and Southside Virginia. The commission is responsible for determining the expenditure of 50 percent of the total amount of funds awarded to Virginia under the Master Settlement Agreement between the tobacco industry and the states, which is approximately \$75 million per year.

Under the statute establishing the commission, these funds are to be used for payments to growers to indemnify them from loss of quota, and to provide for economic development in the affected counties.

The proposed bioinformatics program would establish a research institute in this newly emerging field that is growing at the intersection of biotechnology and information technology. Tracy Wilkins, director of the Fralin Biotechnology Center, is heading the program. Gilmore recommended funding of \$3.2 million in operating funds the first year of the biennium and \$6.5 million the second, along with \$1.9 million for three high-technology greenhouses.

On April 14, the commission members heard presentations by Wilkins and Carole Cramer, professor of plant pathology, physiology, and weed science, about the revolution taking place in medicine and agriculture due to inter-related advances in genomics and information technology. It was stressed to the commission that for Virginia to have a role in these developments, it is critical to get this program under way immediately. Although precise results of the effort cannot be predicted, as is the case with any research program, it can be assumed that there will be

(See BIOINFORMATICS on 4)

Warner, Burkhart named Commencement speakers

By David Nutter

U.S. Senator John Warner will be the keynote speaker at Virginia Tech's undergraduate Commencement ceremony on Saturday, May 13, beginning at 9 a.m. in Lane Stadium.

Warner will address a graduating class that is expected to number some 4,000 undergraduates. Historically there are some 30,000 people in attendance at the Commencement ceremony.

Warner is serving his fourth term representing Virginia in the United States Senate. He was first elected to office in November, 1978.

Warner serves as chairman of the Senate Armed Services Committee. He is also the second-most-senior Republican member of the Environment and Public Works Committee and a member and former chairman of the Senate Committee on Rules and Administration.

(See WARNER on 4)

By Susan Trulove

Harold E. Burkhart, university distinguished professor, a Virginia outstanding faculty member, and head of the forestry department at Virginia Tech, will be the speaker at the university's Graduate School Commencement Ceremony. More than 1,000 master's and doctoral degree recipients are eligible to participate in ceremony at Cassell Coliseum at 4:30 p.m. Friday, May 12.

Burkhart's topic will be "The Value of a Graduate Education." In three decades as a faculty member at Virginia Tech, he has taught thousands of students and been the major professor for more than 60 graduate students, and has seen many of them earn fellowships and university and professional awards for their research and teaching, and achieve significant success as faculty members, researchers, and managers for government agencies and major corporations.

Burkhart's research on forest growth and yield prediction, and on forest inventory and

sampling has earned a Virginia Academy of Sciences research award and the Virginia Tech Alumni Award for Research Excellence. National and international honors have come to him from the International Union of Forestry Research Organization (IUFRO), the Society of American Foresters, and the International Association for Ecology. He received the award for Distinguished Service to IUFRO in 1995.

Burkhart has shared his findings through hundreds of articles in professional publications, and he is co-author of the textbook, *Forest Measurements*, now in its fourth edition, that is required reading for nearly every undergraduate student in forestry nation wide. He is also a former editor of *Forest Science*, and the *Southern Journal of Applied Forestry*.

Also speaking at the Graduate Ceremony is National Science Foundation Fellow Timothy Wayne Mays, a doctoral student in civil and environmental engineering. His topic be the people who have taken a chance on him and

(See BURKHART on 4)

Tech researchers receive presidential awards

JEFFREY BORGGARD

By Sally Harris

Jeffrey Borggaard, assistant professor of mathematics at Virginia Tech, whose research is sponsored by the Air Force Office of Scientific Research, will receive the prestigious Presidential Early Career Award for Scientists and Engineers (PECASE) April 12 in a ceremony at the White House.

This award is the highest honor bestowed by the U.S. government on young professionals who are at the outset of their independent research careers. The award includes a five-year, \$500,000 research grant. Borggaard was one of two researchers to receive the award, which recognizes the researchers' efforts in conducting top-quality research in areas of critical importance to the Air Force.

"These researchers have made important contributions to the science and technology needs of the Air Force," said Joe Janni, director of the Air Force Office of Scientific Research.

"Dr. Borggaard's work on continuous sensitivity-equation methods for non-linear partial-differential equations has produced new and powerful computational tools with wide applications to the design, control, and optimization of aerospace systems," said Marc Jacobs,

(See BORGGARD on 4)

SANJAY RAMAN

By Liz Crumbley

On April 11, President Bill Clinton presented a 1999 Presidential Early Career Award for Scientists and Engineers (PECASE) to Sanjay Raman of electrical and computer engineering.

Raman was one of only 60 researchers from throughout the nation to receive a PECASE award, which is the highest honor bestowed by the U.S. government to outstanding scientists and engineers in the early stages of their research careers. Each PECASE researcher will receive a five-year grant of \$500,000.

The awards, presented during the ceremony at the White House, were established by the Clinton Administration in 1996 to recognize young researchers and help maintain U.S. leadership in scientific research.

As a Ph.D. student at the University of Michigan, Raman fabricated a millimeter-wave radar receiver—including antennas and receiving circuitry—on a single integrated-circuit (IC) chip.

Now, he will attempt to develop methods of directly integrating antennas with the electronics used in wireless devices, such as cellular phones, on single IC chips. The ultimate goal of this line of research is to

(See RAMAN on 4)

BOV Committee Meets

The Buildings and Grounds Committee of the Board of Visitors will hold a special meeting on campus Friday, April 28. The meeting will begin at 1:30 p.m. in 333 Norris.

The purpose of the meeting is to review exterior design revisions to the proposed Student Services Building.

ACTIVITIES

EVENTS

Friday, 21

Homelessness Forum, 9 a.m.-noon, DBHCC.
Homeless Simulation, 1-3 p.m., Squires Old Dominion Ballroom.
Theatre Event, 8 p.m., Squires Studio Theatre: "Much Ado about Nothing."

Saturday, 22

Student Recital, 3 p.m., Squires Recital Salon: Roseanne Harvey.
Ensemble Concert, 8 p.m., Squires Recital Salon: University Concert Choir and Meistersingers.

Sunday, 23

Easter Buffet, 11 a.m.-1 p.m., DBHCC Dining Room.
Ensemble Concert, 8 p.m., Squires Recital Salon: Horn Ensemble.

Monday, 24

Multicultural Program, 1-5 p.m., 140 Squires: Reading of names of Holocaust victims.
Multicultural Program, 6 p.m., 140 Squires: "Christian Reactions to Anti-Semitism before the Holocaust."

Tuesday, 25

Faculty Senate, 7 p.m., 32 Pamplin.

Holocaust Awareness Week Keynote Address, 7 p.m., DBHCC auditorium: Charlene Schiff.
New River Symphony, 8 p.m., Burruss auditorium.

Wednesday, 26

Multicultural Program, 4 p.m., 140 Squires: Closing Reception.
"With Good Reason," 7 p.m., WVTF: "No Body Is a Temple: Testing on Humans."

Thursday, 27

Family Support Program, noon-1 p.m., DBHCC, conference room C: T.J. Stone: New River Valley Community Services.

Holocaust Awareness Week, 7 p.m., Old Dominion Ballroom: "Confronting the Chimneys."

Friday, 28

Founders Day/Presidential Installation, 3 p.m., Burruss auditorium.

SEMINARS

Friday, 21

Highlands in Chemistry, 11 a.m., 3 Davidson: F. Ann

Walker, Arizona.

MCBB, noon, 102 Fralin: Joy Bergelson, Chicago.
Communication Studies, 3:30 p.m., Seitz conference room: Neal King, Belmont.
Botany, 4 p.m., 1076 Derring: Jody Riley.

Monday, 24

Biomedical Engineering, 3 p.m., 114 Holden: Douglas Lauffenburger, MIT.
Geological Sciences, 4 p.m., 4069 Derring: Phil Bennett, Texas.

Horticulture, 4 p.m., 101 Saunders: Sarah Finger.

Thursday, 27

Statistics, 3:45 p.m., 409 Hutcheson: Ray Myers.
CSES, 4 p.m., 246 Smyth: Alex Graves.
Plant Physiology, 4 p.m., 102 Saunders: John McDowell.

Friday, 28

Highlands in Chemistry, 11 a.m., 3 Davidson: Catherine Middlecamp, Wisconsin.
MCBB, noon, 102 Fralin: Lola Reid, UNC.
Botany, 4 p.m., 1076 Derring: Rhonda Edwards.

Women's Network meeting open to all

On Tuesday, May 9, at noon the Women's Network will meet in the Women's Center conference room. The Women's Network welcomes ideas, time, energy, leadership, and commitment toward improving women's roles within the university community.

The Women's Network is self-governed and self-funded. Its goals are to advocate women's concerns, to support women's career advancement, to assure participation in decision making, to create communication channels, and to bring together the university community.

Speaker announced for Gerontology Forum

Gerontologist Steven H. Zarit will be the guest speaker at the Gerontology Forum on Thursday, May 11 from 7-8 p.m. in the Wallace atrium. The last event in this year's series is sponsored by Sigma Phi Omega, the Gerontology Honor Society, and the Center for Gerontology. Zarit's research focuses on caregiving for persons with Alzheimer's disease and related memory disorders. A reception will follow his presentation. The forum will also honor graduate students receiving the Certificate for Gerontology.

Zarit is a researcher, educator and clinician whose work has focused on the mental health problems of older people and their families. He is professor of human development and assistant director of the Gerontology Center at Penn State and Adjunct Professor, Institute of Gerontology, University College of Health Sciences in Jönköping, Sweden. Zarit has conducted pioneering work on the problems faced by families of people with Alzheimer's disease and related memory disorders, and

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on interventions to relieve the stresses of family caregiving.

Massey Award applications due

Applications for the P. Howard Massey Food and Nutrition Scholar Award, due by 5 p.m. today can be obtained from Sherry Saville in 338 Wallace. The Massey Award provides up to \$500 to support graduate-student research projects that relate to food and/or nutrition problems affecting individual and households in developing countries.

Presentation to focus on homebuilding

Liza A. Bowles, president, NAHB Research Center, will make a presentation titled "Advances in Homebuilding Technology and Design" on Tuesday, April 25 from 3-4:30 p.m. in the Burruss Building Construction Studio, Room 123B (enter Burruss in the back through the door facing Cowgill Hall). This is an opportunity to learn about cutting edge research influencing the design and construction of residential buildings. Bowles' visit is sponsored by the College of Architecture and Urban Studies and the Department of Urban Affairs and Planning Speaker Series. For more information, contact Ted Koebel at 1-3993.

Women's contributions to math examined

Margaret Murray, associate professor in the Department of Mathematics, will present the talk in the Donaldson Brown Hotel and Conference Center auditorium at 7 p.m. on Monday, April 24

titled "Women in Mathematics: From Hypatia to Herta Freitag."

The presentation describes the history of women's involvement with mathematics, emphasizing the key role that women played in mathematical research and teaching in the 20th Century, especially in the United States.

For more information, call Susan Anderson at 1-8041 or e-mail her at anderson@math.vt.edu.

American Cancer Society Grants available

The American Cancer Society has funded an Institutional Research Grant to Virginia Tech. Applications are invited from junior faculty members for two grants of \$20,000 each for one year to perform studies on basic, clinical (including cancer control, health services and psychosocial/behavioral cancer research), pre-clinical, epidemiologic and health policy/outcome research. These grants are intended for new investigators (within eight years of first independent academic appointment) without an active nationally competitive research grant (i.e. NIH, NSF, ACS).

Details are available at www.vetmed.vt.edu/College/forms/techcamp/grantforms.html.

Forum focuses on homelessness

A Homelessness Forum to be held today, in the Donaldson Brown Center and Squires Old Dominion Ballroom will address the state of homelessness in the New River Valley and beyond.

For more information or to register, call the Service-Learning Center at 1-6964.

Women, minority artists, scholars lecture set

By Sally Harris

Women and Minority Artists and Scholars lecture series will present "Answers That Lie in The Questions," a discussion by Catherine Hurt Middlecamp April 27, 4 p.m. in 4069 Derring.

Middlecamp is from the University of Wisconsin-Madison. A reception will follow her talk in the Geology Museum (second-floor Derring).

In a university environment, it is all too easy to focus on answers, such those involved with homework problems, test questions, or even doctoral exams. Answers are important,

and the person who knows answers to a wide variety of questions has one of the tools needed for success in any field. However, questions and answers are more rightly viewed as two equal sides of an intellectual coinage. As such, both need careful attention.

Creating an environment where learners (faculty members and students alike) can pose their own questions is more challenging than some may think. This seminar will explore questions as one aspect of feminist pedagogy. It is intended to raise more questions than it answers and to provide interactive exercises that demonstrate the complexities of both question

and the questioner.

The seminar is sponsored by the Women and Minority Artists and Scholars Lecture Series (Provost's Office), the Organization of Women Faculty, the Center for Excellence in Undergraduate Teaching, the Department of Chemistry and the Department of Biology, the Center for Interdisciplinary Studies, the Center for Science and Technology Studies, the College of Arts and Sciences, Instructional Services, and Women's Studies.

For more information, contact Muriel Lederman at 1-5702, 1-9307 (fax) or e-mail lederman@vt.edu.

NOTIFICATION TO CLASSIFIED EMPLOYEES

Additional information sessions on the new classified compensation plan have been scheduled as follows: April 25 from 3 to 4:30 p.m., and April 26 from 8:30 to 10 a.m.

All sessions are in the Donaldson Brown auditorium.

EMPLOYMENT

CLASSIFIED POSITIONS

The following classified positions are currently available. More details of these positions, specific application procedures and position-closing dates may be found on the Personnel Services web site at <http://www.ps.vt.edu>. Available positions are also listed on the Job Line, a 24-hour recorded message service. For information on all job listings, call 1-5300. Some of the following positions include state benefits. Positions with numbers beginning with a "W" are hourly and do not include state benefits. Individuals with disabilities desiring assistance or accommodation in the application process should call by the application deadline.

Closing date for advertised positions is 1 p.m. Monday. An EO/AA employer committed to diversity.

Full Time

Applications Analyst, 7328D, Grade 0, AIS.

Budget Manager, 1951T, Grade 14, Budget/Financial Planning.

Budget Manager, 7567T, Grade 14, Budget/Financial Planning.

Computer Center Lead Engineer, 7438T, Grade 16, CPES.

Computer Network Support Technician Senior, 7579F, Grade 10, Hokie Passport.

Electrician, 7565G, Grade 7, Physical Plant.

Executive Secretary, 4406T, Grade 6, Mining/Minerals Engineering.

Executive Secretary, 1854T, Grade 6, Budget/Financial Planning.

Fire Protection Inspector, 239G, Grade 10, EHSS.

Fiscal Technician, LC004J, Grade 6, Athletics.

Fiscal Technician, 6459G, Grade 6, Physical Plant.

Food Operations Manager B/Executive Chef, 0837H, Grade 10, Residential/Dining Programs/West End Market.

Food Operations Manager B/Executive Chef, 1781H, Grade 10, Residential/Dining Programs/Dietrich Dining Hall.

Geotechnical Engineering Technician (Lab Instr Supervisor), 7580J, Grade 11, Civil/Environmental Engineering.

Housekeeping Worker, 0485H, Grade 1, Residential/Dining Programs.

Housekeeping Worker, 7572C, Grade 1, Physical Plant.

Human Resource Generalist, 1073T, Grade 12, Personnel Services.

Laboratory Specialist, 529G, Grade 8, EHSS.

Laboratory Specialist, 7595M, Grade 8, Biochemistry.

Laboratory Specialist, 7596M, Grade 8, Biochemistry.

Landscape Supervisor, 2815G, Grade 10, Physical Plant/Grounds.

New Media Center Manager, 6918D, Grade 14, Instructional Services.

Operating Systems Analyst, 2836D, Grade 0, Computing Center.

Operating Systems Analyst, 2242D, Grade 0, AIS.

Police Captain, 7578T, Grade 11, Police Department.

Police Officer, P02004G, Grade 0, Police Department.

Program Support Technician, 6763T, Grade 6, Engineering Development.

Program Support Technician, 7161D, Grade 6, University Development.

Program Support Technician, 5159T, Grade 6, College of Business.

Program Support Technician Senior, 7588T, Grade 7, Mechanical Engineering.

Program Support Technician Senior, 1195J, Grade 7, University Unions/Student Activities.

Program Support Technician Senior, 1441T, Grade 7, College of Engineering.

Public Relations Assistant Specialist, 7239J, Grade 8, Recreational Sports.

Public Relations Coordinator, LC083, Grade 12, University Relations.

Telecommunications Database Manager,

2967A, Grade 8, CNS.

Part Time

Animal Care Technician A, W022155M, Grade 3, Veterinary Teaching Hospital.

Animal Care Technician A, W022675J, Grade 3, Veterinary Teaching Hospital.

Animal Care Technician B, W022218, Grade 5, Veterinary Teaching Hospital.

Computer Technician (Installation & Repair Tech.), W022991T, Grade 8, Mathematics.

Executive Secretary, W022984T, Grade 6, University Leadership Development.

Housekeeping Worker, W020574G, Grade 1, DBHCC.

Laboratory Technician, W022261J, Grade 4, Veterinary Teaching Hospital.

Laboratory Technician Senior, W022172M, Grade 5, Veterinary Teaching Hospital.

Laboratory Technician Senior, W020117T, Grade 5, EHSS.

Macintosh Support Technician (Installation/Repair Tech), W022166T, Grade 8, Mathematics.

Office Services Assistant, W0023017J, Grade 4, Veterinary Teaching Hospital.

Office Services Assistant (Switchboard Operator), W022101C, Grade 4, CNS.

Pilot, Second In Comm, W021102G, Grade 12, Air Transportation Services.

Program Support Technician, W022995C, Grade 6, Educational Technologies.

Public Relations Assistant Specialist/Web Designer, W022976H, Grade 8, Residential/Din-

ing Programs/Marketing/Conference Services.

Quality Assurance Agent, W023015D, Grade 0, AIS.

Radiologic Technologist, W022238G, Grade 7, Health Center.

University Only

Administrative Assistant to the President, U0423T, Grade 9, President's Office.

Off Campus

Library Specialist Senior, 7587F, Grade 10, University Libraries/Northern VA Ctr.

FACULTY POSITIONS

INSTRUCTIONAL

Department of Educational Leadership and Policy Studies. Assistant/Associate Professor. Contact: Dianne Yardley, 101 War Memorial Hall (0317). Review begins fall 2000.

NON-INSTRUCTIONAL

Virginia Cooperative Extension. Extension Agent, 4-H Youth Development. #111125, Middlesex Co. Contact: John Dooley, 122 Hutcheson Hall (0437). Review begins May 8.

Virginia Cooperative Extension. Extension Agent, 4-H Youth Development. #FA630, Norfolk City. Contact: John Dooley, 122 Hutcheson Hall (0437). Review begins May 8.

Virginia Cooperative Extension. Extension Agent, 4-H Youth Development. #FA657, Albemarle Co. Contact: John Dooley, 122 Hutcheson Hall (0437). Review begins May 15.

Corps of Cadets. Assistant Commandant for Recruiting. Contact: Wesley Fox, 143 Brodie Hall (0213).

Eleven named, honored as multicultural fellows

By Clara B. Cox

Eleven members of the faculty, staff, and administration have been selected to serve Virginia Tech in the role of multicultural fellows, comprising the second class of fellows named to focus on diversity issues at the university.

The new multicultural fellows are Jerrold P. Allen, commandant of cadets; Kimberly S. Brown, director of the Academic Advising Center; Shelia R. Clark, assistant coordinator of athletic academic enrichment; Mary Connerley, assistant professor of management; Mahmood A. Kahn, director of hospitality and tourism management; Ann Kilkelly, associate professor of theatre arts and women's studies; James C. Klagge, associate professor of philosophy; Martha Laster Mullen, foreign national tax specialist; Raymond V. Plaza, residence director for Pritchard Hall; Sharon Snow, assistant director of the Women's Center; and Tony A. Sutphin, financial aid counselor.

The first class of fellows, selected a year ago, worked on a communications project that resulted in creation of *The Virginia Tech Conductor*, a periodic newsletter that focuses on current diversity issues and serves as a forum for sharing ideas and strategies for addressing climate issues and concerns about the status of people of color, women, and other under-represented groups in the university environment.

"We are overwhelmed by the interest shown in the Multicultural Fellows Program. For two years in a row the program has been oversubscribed," said Benjamin Dixon, vice president for multicultural affairs. "This is one of the few voluntary activities outside of the University Council where the membership and project activities have involved both faculty and staff members. We hope this sends a message that making this university a more welcoming place for all is everybody's business and that everyone stands to benefit in the long run."

The fellows program is an initiative of the Dean of Students Office, Political Science Department, and the Office of the Vice President for Multicultural Affairs. It was initiated in late 1998 to provide a formal mechanism for faculty and staff members and administrators to contribute to the university's mission of fostering a welcoming community for all people. The program was also designed to recognize and encourage the activities of individuals who regularly contribute to multicultural and diversity programs.

Among the criteria for selection are a demonstrated commitment to diversity at the university and an interest in developing projects that contribute to diversity.

The new fellows were honored by the sponsors of the program at a reception on April 12. Joining them were members of the first class of fellows and members of the Virginia Tech community.

New on-line calendar now available on campus

Over the past few months, University Relations has been working with Virginia Tech's Web Application Research and Development on a new electronic calendar located at <http://www.calendar.vt.edu>.

Organizations that are officially registered at Virginia Tech and sponsors events that are open to the university community can apply for authorization to directly input event information for the calendar. Authorization can be obtained by contacting calendar coordinator Julie Kane in the Office of University Relations at calendar@vt.edu. Authorized organizations will

receive a user ID and a password. All event submissions will be reviewed by the calendar coordinator before they are posted. Consequently, it is important to submit items at least two days in advance of the event.

During the review process, submissions will be checked to see if they are appropriate for posting and edited for clarity and conciseness. If a submission is rejected, an e-mail will be sent to the sponsor to update the entry. The interface is simple, and information can be cut and pasted into the on-line calendar.

Calendar event information that is entered

into the VT event calendar can also be exported to other area calendars, such as fieldParty.com, saving event sponsors the trouble of re-keying information.

Events that are sponsored by commercial entities are prohibited, as are events that are not open to the general university community. Technical suggestions or questions should be directed to vtec@vt.edu, and questions regarding content and authorization to post events should be directed to calendar@vt.edu.



VIRGINIA POLYTECHNIC INSTITUTE
AND STATE UNIVERSITY

Spectrum, a faculty-staff tabloid, is published each Friday during the academic year, with the exception of certain holidays, exam weeks, and the summer. Copy deadline is noon Friday. No advertising is accepted.

Spectrum is a non-profit publication of the Office of University Relations: Lawrence G. Hincker, associate vice president for University Relations; David Nutter, associate director for Public Affairs.

Editor
John Ashby, 1-8961
Assistant Editor
Christian Moody, 1-8538
Production Manager
Melinda Shaver, 1-8524
Business Manager
1-8819

Letters to the editor and questions for "Ask *Spectrum*" should be addressed to the editor, 105 Media Building, Virginia Tech, Blacksburg, VA 24061.

Electronic *Spectrum*: <http://www.vt.edu:10021/admin/eeaa/index.html>

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IN OTHER NEWS

Engineering inducts new initiates into academy

By Lynn Nystrom

The College of Engineering and its Advisory Board, consisting of members of its Committee of 100 inducted seven new initiates into its Academy of Engineering Excellence last week.

The initiates of the Academy of Engineering Excellence for 2000 are Fred D. Durham (posthumous), 1922, civil engineering; Clifton C. Garvin Jr., who received both a bachelor's and a master's degree in chemical engineering in 1943 and in 1947, respectively; Alexander F. Giacco, 1942, chemical engineering; John Grado, 1951, industrial engineering and operations research; Alfred E. Knobler, 1938, ceramic engineering; Christopher C. Kraft, Jr., 1944, aeronautical engineering; and James E. Turner, Jr., 1956, agricultural engineering.

Membership in the academy is reserved for individuals holding an engineering degree from Virginia Tech's College of Engineering who have made sustained and meritorious engineering and/or leadership contributions during their careers. Initiates have reached the pinnacle of their professional achievements and will normally have been alumni for 40 or more years.

The College of Engineering and the Advisory Board anticipate that no more than 10 individuals will be inducted as members of the Academy of Engineering Excellence annually. This selection is made from some 40,000 living alumni of the College of Engineering.

Brief backgrounds of the individuals follow.

Durham and a partner formed the Dover Corporation in 1955. He remained in that position until his retirement in 1971. The

company consists of more than 50 separate businesses today and is among the Fortune 500 companies.

Garvin started his career with Exxon as a process engineer. In 1968 he was named to the Exxon Board, and four years later, he was named the company's president. In 1975, he was elected chairman of the board and chief executive officer of the petroleum company. He held this position until his retirement in 1986.

Giacco held management positions in research, production, marketing, planning and international aspects of the company at Hercules Incorporated, based in Wilmington, Del... He served as its president from 1977 until 1987 and as its chairman of the board from 1980 until 1987, the year he retired from the company.

Grado became the Fitchburg Paper Company's first chief industrial engineer. He soon became the president of its Decotone Division, and within six months, he had turned the unprofitable division into a money-making operation. Grado was named an executive vice-president of the company in 1964.

Grado served as corporate vice-president of Litton Industries, and built the group into a \$300-million operation under Litton. After almost two decades, Grado recognized the chance to own his own company, Technographics in 1983.

Knobler purchased a small hand-blown-glass factory in West Virginia, which he renamed The Pilgrim Glass Corporation in 1949. Pilgrim Glass grew steadily, and has been at the forefront of technological advances in glass production. Pilgrim stands today as the world's only producer of the extraordinary multi-layered, multi-colored work known as American Cameo Art Glass.

Graduating in 1944 with a bachelor's degree in aeronautical engineering, Kraft immediately

joined the Langley Aeronautical Laboratory of the National Advisory Committee for Aeronautics (NACA), the precursor of NASA.

In October 1958, Kraft was selected as one of the original members of the Space Task Group, the organization established to manage the Project Mercury. He personally served as the flight director for all of the Mercury missions and many of the Gemini missions. Kraft retired from NASA in 1982.

Turner is the retired president and chief operating officer of General Dynamics Corp., a member of the National Academy of Engineering, and the current rector of Virginia Tech's Board of Visitors.

Turner spent more than 40 years associated with the naval nuclear shipbuilding and commercial nuclear power projects and his work earned him the 1999 Fleet Admiral Chester W. Nimitz Award from the Navy League of the U.S. The award is given annually to a person who has made a major contribution to the U.S. maritime strength.

BURKHART

Continued from 1

how it has helped him to become the person he is. "I want to challenge the graduates to take a chance on others, because they never know exactly whose lives they will impact the most," Mays said.

Mays earned the NSF fellowship while a master's degree student at Tech and elected to remain here to continue studying under Ray Plaut. Mays' studies are directed at structural control for earthquake mitigation. His ambition is to develop systems for retrofitting structures that already exist along a fault line against earthquake damage. Mays will also speak at the University Commencement on Saturday morning.

Founders Day
Broadcast Information

Founders Day 2000 and the Presidential Installation Ceremony will be available live on Campus Cable, channel 6 and Blacksburg Cable, channel 15.

The ceremony will be televised live at the following locations over the ATM network: Southwest Virginia (Abingdon)—room 143; Alexandria Architecture Center; Alexandria Research Institute—video conference room; Roanoke Valley Graduate Center—room 100; Hampton Roads Graduate Center—conference room; NOVA Center—room 113.

The ceremony will also be web cast to the European Studies Center in Switzerland and highlights will be streamed off the Virginia Tech home page beginning Monday, May 1, at 5 p.m.

Cunningham Fellow Steven Wayne Jilcott, a doctoral student in mathematics, will be the graduate-student marshal. State Graduate Dean's Fellow Letecia Nicole Moye, a doctoral student in clothing and textiles, will be the closing speaker.

Tickets are not required for guests to attend the ceremony. It is requested that guests be seated by 3:45 p.m.

Former Maryland Governor Harry Roe Hughes will be the keynote speaker at the Virginia-Maryland Regional College of Veterinary Medicine's Commencement ceremony on May 12. Hughes, the 57th governor of Maryland, joined former Virginia Governor John Dalton in co-signing the enabling legislation which created the Virginia-Maryland Regional College of Veterinary Medicine in 1978.

BIOINFORMATICS

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significant long-term economic-development results for the region.

The commission engaged in a lengthy debate on the proposed funding. All who spoke supported the concept of the program and the need for Virginia Tech to move ahead in this field; however, some questioned whether this is an appropriate use of tobacco-settlement funds. The commission voted unanimously on

a voice vote to support the program, with the understanding that the university will seek to move the program to General Fund support as quickly as practicable.

The commission also heard a proposal for support from CropTech Corporation and ToBio, a partnership between CropTech and tobacco growers, to produce transgenic tobacco for pharmaceutical purposes. The commission will consider this request at its meeting next month.

BORGGAARD

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program manager in AFOSR's Directorate of Mathematics and Space Sciences. "For the Air Force, this work provides the foundation for new software that can reduce design-cycle times from years to weeks. The payoffs are exciting applications to the design of aerospace vehicles, optimization of propulsion systems, and the control of aerodynamic flows."

Borggaard, who received his doctorate in mathematics from Virginia Tech in 1995, studies problems such as how to develop wind tunnels to test aircraft engines for safety and performance under flight conditions. Wind tunnels simulate these conditions by directing air flow toward the engine. Borggaard's mathematical "shape optimization" work helps make the wind-tunnel simulation as close to the real thing as possible.

Borggaard will use the PECASE award for his research called "Control and Optimization Tools for Systems Governed by Nonlinear Partial Differential Equations." He will look at ways to control turbulent flows; this could be used to reduce the drag force on planes. A potential benefit would be that planes may feel less drag force, allowing them to travel farther and use less fuel.

These presidential awards, established by Clinton in 1996, embody the high priority the administration places on producing outstanding scientists and engineers and nurturing their

continued development. Eight federal departments join together annually to nominate the most meritorious young scientists and engineers who will advance science and technology that will be of the greatest benefit to the participating government agencies.

Borggaard received a B.S. and an M.S. in mechanical engineering and a M.S. in applied mathematics, all from Worcester Polytechnic Institute, before coming to Virginia Tech to earn his Ph.D. He has served as a mechanical engineer with the Naval Underwater Systems Center, a research assistant professor at Virginia Tech, and an NSF post-doctoral associate at Cornell University.

RAMAN

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put all of the components of wireless technology on single-chip systems.

"Someday, the equivalent of a cell phone will be the size of a dress button or a small piece of jewelry," Raman said.

Last year, he received a National Science Foundation (NSF) Faculty Early Career Development Program award, a four-year grant worth about \$200,000. CAREER awards are presented annually by the NSF to a select roster of faculty members nation wide who have demonstrated early in their careers the potential to make significant contributions to engineering research and instruction. Raman was one of 20 1999 CAREER award recipients selected for the PECASE award.

The single IC chip technology Raman is developing will have a myriad of applications

aside from use in personal communications systems. Environmental sensors on chips could be placed easily and inexpensively throughout buildings to monitor temperature and other conditions and radio messages back to a central control computer.

These wireless distributed sensors would be particularly useful on military ships and aircraft, freeing personnel from having to make manual checks on equipment conditions. Raman knows a great deal about the potential benefits for the military; he spent more than three years as an officer on a U.S. Navy nuclear submarine.

He also foresees medical applications. "Chips could be embedded in at-risk individuals to monitor for impending heart attacks and alert medical personnel via wireless communications before an attack actually occurs."

Raman also imagines a wireless "DNA crime lab on a chip," with one section of the device testing samples at a crime scene for DNA while another radios a central database for possible identification of the perpetrator.

The educational component of Raman's work includes developing a graduate course in radio frequency integrated circuit design. With this added component, he said, Virginia Tech will offer one of the most comprehensive communications technology curriculums in the world.

WARNER

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For eight years, 1987-1995, Warner served on the Senate Intelligence Committee. The last two years, from 1993-1995, he was vice chairman of the committee.

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